

Response
Application No. 09/881,784
Attorney Docket No. 010746

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

LISTING OF THE CLAIMS:

Claims 1 and 2 (Cancelled).

Claim 3 (Currently Amended): A The color image processing apparatus for detecting and correcting fault pixels in a color image pickup device having a plurality of pixels each with a correspondingly disposed filter device of color filter having a plurality of filter devices respectively of predetermined colors, said color image processing apparatus comprising:

means for detecting fault pixels by establishing a correlation among pixel signals along an arrangement of consecutively adjoining ones of identical color; and

means for correcting pixel signals corresponding to the fault pixels detected at the fault pixel detecting means ~~according to claim 1~~, wherein said fault pixel detecting means processes pixel signals of a plurality of pixels corresponding to a plurality of adjoining filter devices of colors which are not identical to produce operation-generated color over a plurality of pixels and establishes a correlation among pixel signals along an arrangement of spatially consecutive ones of identical operation-generated color to detect fault pixels.

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Claim 4 (Currently Amended): A ~~The~~ color image processing apparatus for detecting and correcting fault pixels in a color image pickup device having a plurality of pixels each with a correspondingly disposed filter device of color filter having a plurality of filter devices respectively of predetermined colors, said color image processing apparatus comprising:

means for detecting fault pixels by establishing a correlation among pixel signals along an arrangement of consecutively adjoining ones of identical color; and

means for correcting pixel signals corresponding to the fault pixels detected at the fault pixel detecting means ~~according to claim 1~~, wherein said fault pixel detecting means detects first fault pixels by correlating pixel signals along an arrangement of spatially consecutive filter devices of identical color and in addition then processes pixel signals of a plurality of pixels corresponding to a plurality of adjoining filter devices of colors which are not identical to produce operation-generated color so as to detect second fault pixels by correlating pixel signals along an arrangement of spatially consecutive ones of identical operation-generated color.

Claim 5 (Original): The color image processing apparatus according to claim 4, wherein said fault pixel detecting means excludes the first fault pixels from information to be subjected to detection at the time of detecting the second fault pixels.

Claim 6 (Currently Amended): A ~~The~~ color image processing apparatus for detecting and correcting fault pixels in a color image pickup device having a plurality of pixels each with a

correspondingly disposed filter device of color filter having a plurality of filter devices respectively of predetermined colors, said color image processing apparatus comprising:

means for detecting fault pixels by establishing a correlation among pixel signals along an arrangement of consecutively adjoining ones of identical color; and

means for correcting pixel signals corresponding to the fault pixels detected at the fault pixel detecting means ~~according to claim 1~~, further comprising a color generation processing circuit having a line memory for obtaining predetermined color image signals based on image signals from said color image pickup device, and said fault pixel detecting means using said line memory for the color generation processing circuit also as the line memory for a fault pixel detecting circuit.

Claim 7 (Original): A color image processing apparatus for detecting and correcting fault pixels in a color image pickup device having a plurality of pixels each with a correspondingly disposed filter device of color filter having a plurality of filter devices respectively of predetermined colors, said color image processing apparatus comprising:

means for, among an observed pixel and a plurality of pixels adjoining to the observed pixel and having correspondingly disposed filter devices of colors not identical thereto, forming a plurality of pixel group patterns having different arrangement of plurality of pixels including the observed pixel;

means for operating to obtain identical color for the pixel group patterns based on signals obtained from the respective pixels of each pixel group pattern formed at the pixel group pattern forming means; and

fault pixel detecting means for detecting pixel group pattern including fault pixel by establishing among the pixel group patterns a correlation of the signals of each pixel group pattern obtained by the means for operating to obtain identical color.

Claim 8 (Original): The color image processing apparatus according to claims 7, further comprising a color generation processing circuit having a line memory for obtaining predetermined color image signals based on image signals from said color image pickup device, and said fault pixel detecting means using said line memory for the color generation processing circuit also as the line memory for fault pixel detecting circuit.

Claim 9 (Currently Amended): A The color image processing apparatus for detecting and correcting fault pixels in a color image pickup device having a plurality of pixels each with a correspondingly disposed filter device of color filter having a plurality of filter devices respectively of predetermined colors, said color image processing apparatus comprising:
means for detecting fault pixels by establishing a correlation among pixel signals along an arrangement of consecutively adjoining ones of identical color; and

means for correcting pixel signals corresponding to the fault pixels detected at the fault pixel detecting means according to claim 1, wherein said fault pixel detecting means establishes a correlation among pixel signals respectively with respect to a first direction and with respect to a second direction different from the first direction along an arrangement of consecutive ones of identical color and determines as fault pixels those pixels which have been detected as defect both in the first direction and in the second direction.

Claim 10 (Previously Presented): A color image processing apparatus comprising a fault pixel detecting section for detecting fault pixels in a color image pickup device having a plurality of pixels each with a correspondingly disposed filter device of color filter having a plurality of filter devices respectively of predetermined colors, said fault pixel detecting section comprising:

a first direction defect detector for detecting pixel defect along an arrangement in a first direction of consecutively adjoining ones of identical color;

a second direction defect detector for detecting pixel defect along an arrangement in a second direction different from said first direction of consecutively adjoining ones of identical color; and

a fault pixel determining unit for determining as fault pixels those pixels which have been detected as defect both at the first direction defect detector and at the second direction defect detector.

Claim 11 (Currently Amended): A color image processing method for detecting and correcting fault pixels in a color image pickup device having a plurality of pixels each with a correspondingly disposed filter device of color filter having a plurality of filter devices respectively of predetermined colors, said method comprising the steps of:

detecting fault pixels by establishing a correlation among pixel signals along an arrangement of consecutively adjoining ones of identical color; and

correcting pixel signals corresponding to the fault pixels detected at the detecting step,

wherein said detecting fault pixel step includes processing pixel signals of a plurality of pixels corresponding to a plurality of adjoining filter devices of colors which are not identical to produce operation-generated color over a plurality of pixels and establishing a correlation among pixel signals along an arrangement of spatially consecutive ones of identical operation-generated color to detect fault pixels.

Claim 12 (Previously Presented): A color image processing method for detecting fault pixels in a color image pickup device having a plurality of pixels each with a correspondingly disposed filter device of color filter having a plurality of filter devices respectively of predetermined colors, said method comprising the steps of:

detecting pixel defect in a first direction and pixel defect in a second direction different

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from the first direction of an arrangement of consecutively adjoining ones of identical color;
and

determining as fault pixels those pixels which have been detected as defect both ~~it~~ in the first
direction and in the second direction at the detecting step.